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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

Declaration Submitted with Initial Filing      OR       Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	990607 PK
First Named Inventor	KANDPAL
COMPLETE IF KNOWN	
Application Number	09/588,527
Filing Date	JUNE 6, 2000
Group Art Unit	2733
Examiner Name	

As a below named inventor, I hereby declare:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**OPTICAL TRANSMISSION SYSTEMS AND OPTICAL RECEIVERS  
AND RECEIVING METHODS FOR USE THEREIN**

the specification of which

(Title of the Invention)

is attached hereto

OR

was filed on (MM/DD/YYYY) **06/06/2000**

as United States Application Number or PCT International

Application Number

**09/588,527** and was amended on (MM/DD/YYYY) **[ ]** (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?
			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
<b>60/137,833</b>	<b>June 7, 1999</b>	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**BEST AVAILABLE COPY**

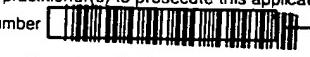
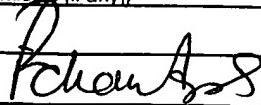
Please type a plus sign (+) inside this box → **[+]**

PTO/SB/01 (12-97)  
Approved for use through 9/30/00. OMB 0651-0032

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)			
<input type="checkbox"/> Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.					
As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: <input checked="" type="checkbox"/> Customer Number  → <input type="checkbox"/> Place Customer Number Bar Code Label here <input type="checkbox"/> Registered practitioner(s) name and registration number listed below					
Name	Registration Number	Name			
PATENT TRADEMARK OFFICE					
021398					
<input type="checkbox"/> Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.					
Direct all correspondence to: <input checked="" type="checkbox"/> Customer Number or Bar Code Label  OR <input type="checkbox"/> Correspondence address below					
Name	021398				
Address	PATENT TRADEMARK OFFICE				
Address					
City	State	ZIP			
Country	Telephone	Fax			
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.					
Name of Sole or First Inventor:	<input type="checkbox"/> A petition has been filed for this unsigned inventor				
Given Name (first and middle if any)		Family Name or Surname			
Inventor's Signature	PRAMODE  KANDPAL				
Residence: City	State	Country	Date	Howard	8/10/02
Post Office Address	Columbia MD				
Post Office Address	7015 ALBERT EINSTEIN DRIVE				
City	State	ZIP	Country	COLUMBIA MD 21046 USA	
<input type="checkbox"/> Additional inventors are being named on the _____ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto					

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<b>DECLARATION</b>		<b>ADDITIONAL INVENTOR(S) Supplemental Sheet</b>
		Page <u>1</u> of <u>1</u>

<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
<i>Alistair J.</i>		<i>PRICE</i>					
Inventor's Signature	<i>Alistair T. Price</i>				Date	<i>8/28/2000</i>	
Residence: City	<i>COLUMBIA</i>	State	<i>MD</i>	Country	Citizenship	<i>U.K.</i>	
Post Office Address	<i>ALBERT EINSTEIN DRIVE</i>						
Post Office Address	<i>Ellicott City</i>						
City	<i>COLUMBIA</i>	State	<i>MD</i>	ZIP	<i>21046-940</i>	Country	<i>USA</i>
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
<i>DAVID F.</i>		<i>SMITH</i>					
Inventor's Signature	<i>David F. Smith</i>				Date	<i>8-15-00</i>	
Residence: City	<i>ELLIOTT CITY</i>	State	<i>MD</i>	Country	<i>USA</i>	Citizenship	<i>UK</i>
Post Office Address	<i>ALBERT EINSTEIN DRIVE</i>						
Post Office Address							
City	<i>COLUMBIA</i>	State	<i>MD</i>	ZIP	<i>21046</i>	Country	<i>USA</i>
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
Inventor's Signature					Date		
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

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## ASSIGNMENT OF INVENTION

- For:  U.S. and/or  Foreign Rights  
 For:  U.S. Application or  U.S. Provisional Application  
 For:  U.S. Patent  
 For:  PCT Application  
 By:  Inventor(s) or  Present Owner

In consideration of the payment by ASSIGNEE(S) to ASSIGNOR(S) of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

### ASSIGNOR(S)

Pramode Kandpal	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046-9400	U.S.A.
name of Assignor	Address	Nationality
Alistair J. Price	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046-9400	U.K.
name of Assignor	Address	Nationality
David F. Smith	7015 Albert Einstein Drive, PO Box 9400, Columbia, MD 21046-9400	U.K.
name of Assignor	Address	Nationality

Recorded on \_\_\_\_\_ Reel \_\_\_\_\_ Frame \_\_\_\_\_

hereby sells, assigns and transfers to

### ASSIGNEE(S):

CORVIS Corporation	7015 Albert Einstein Drive PO Box 9400 Columbia, MD 21046-9400	Delaware Corporation
(name of ASSIGNEE)	Address	Nationality

and the successors, assigns and legal representatives of the ASSIGNEE(S)

- the entire right, title and interest for the United States and its territorial possessions
- an undivided \_\_\_\_\_ percent (\_\_\_\_\_%) interest for the United States and its territorial possessions
- and in all foreign countries, including all rights to claim priority, in and to any and all improvements which are disclosed in the invention entitled:

### Optical Transmission Systems and Optical Receivers and Receiving Methods for use therein

and which is found in

- (a)  U.S. patent application executed on even date herewith
- (b)  U.S. patent application executed on \_\_\_\_\_
- (c)  U.S. provisional application naming the above inventor(s) for the above-entitled invention

Express mail label no.: Mailed: \_\_\_\_\_

To comply with 37 CFR 3.21 for recordal of this assignment, ASSIGNOR(S) signing below, hereby authorize and request my attorney to insert below the filing date and application number when they become known.

- (d)  U.S. application no.: 09/588,527 filed on June 6, 2000

- (e)  International application no. filed on \_\_\_\_\_  
and amended on \_\_\_\_\_
- (f)  U.S. patent no. \_\_\_\_\_ issued \_\_\_\_\_  
 A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately.
- (g)  and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof.

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenants that ASSIGNEE(S) will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR(S) and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE(S) or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, ASSIGNOR(S) have hereunto set hand and seal this:

**WARNING:** The date of signing must be the same as the date of execution of the declaration, if item (a) was checked above.

Pramode Kandpal

Name of Assignor or  
Name & Title of Person entitled to sign on  
behalf of Assignor

Signature of Assignor or  
Person entitled to sign on behalf of Assignor

Date

8/15/00

Alistair J. Price

Name of Assignor or  
Name & Title of Person entitled to sign on  
behalf of Assignor

Alistair J. Price

Signature of Assignor or  
Person entitled to sign on behalf of Assignor

8/28/00

Date

David F. Smith

Name of Assignor or  
Name & Title of Person entitled to sign on  
behalf of Assignor

David F. Smith

Signature of Assignor or  
Person entitled to sign on behalf of Assignor

8-15-00

Date

Place of signing of assignment

City/County :

State :

Country :

Before me this 15 day of August, 2000 personally appeared Pramode Kandpal, Alistair J. Price, and David F. Smith, to me known to be the person(s) who  is  are described in and who executed the foregoing assignment instrument and acknowledged its contents of their own free will for the purpose therein expressed.

GLADYS MARIE DONACHY  
NOTARY PUBLIC STATE OF MARYLAND  
My Commission Expires November 1, 2000

Notary Public or Consular Officer of the United States of America

NOTE: Notarization of this document is only prima facie evidence of execution, 35 USC 261.

## Place of signing of assignment

City/County : Howard  
State : Maryland  
Country : USA

Before me this 28 day of August, 2000 personally appeared Alistair J. Price to me known to be the person(s) who  is  are described in and who executed the foregoing assignment instrument and acknowledged its contents of their own free will for the purpose therein expressed.

Gladys Marie Donachy  
Notary Public or Consular Officer of the United States of America

NOTE: Notarization of this document is only prima facie evidence of execution, 35 USC 261.

GLADYS MARIE DONACHY  
NOTARY PUBLIC STATE OF MARYLAND  
My Commission Expires November 1, 2000